



PATENT  
454313-2250.1

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s) : Jean-Christophe AUDONNET et al.  
Serial No. : 10/085,519  
For : POLYNUCLEOTIDE VACCINE FORMULA IN  
PARTICULAR AGAINST BOVINE  
RESPIRATORY PATHOLOGY  
Filed : February 28, 2002  
Examiner : To Be Assigned  
Art Unit : 1642

745 Fifth Avenue  
New York, NY 10151

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Date of Deposit: May 28, 2002

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*Barnet Shindelman*

(Typed or printed name of person mailing paper or fee)

*Barnet Shindelman*

(Signature of person mailing paper or fee)

**PRELIMINARY AMENDMENT IN RESPONSE TO NOTICE TO FILE CORRECTED  
APPLICATION PAPERS**

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

This is in response to the Notice to File Corrected Application Papers, mailed March 28, 2002, setting a two-month term for reply. As this is being filed before the end of the term for

reply, it is believed that no fees are necessary. However, please charge any additional fees, or credit any overpayment in fees, to Deposit Account No. 50-0320.

**AMENDMENT**

**IN THE SPECIFICATION:**

Please accept the enclosed substitute specification in place of the specification originally filed.

**REMARKS**

The notice required submission of a substitute specification correcting pages 3, 8, 13 and 18. A substitute specification has now been entered by amendment to the application. The substitute specification provides a legible copy of these pages, and, it is respectfully submitted, contains no new matter.


The notice also required submission of the required statements regarding sequence listings, as stated in 37 C.F.R. §1.821(e-g) and 37 C.F.R. §1.825 (b) or (d). Accordingly, submitted herewith is a copy of the Preliminary Amendment filed February 28, 2002 which introduced the sequence listing and contained the required statements. Specifically, the examiner's attention is respectfully drawn to page 4 of the Preliminary Amendment.

**CONCLUSION**

In view of the amendments, remarks and enclosures herein, it is respectfully submitted that the application now complies with all requirements set forth in the Notice. Accordingly, reconsideration and withdrawal of the Notice is respectfully requested.

Respectfully submitted,  
FROMMER LAWRENCE & HAUG LLP

By:

  
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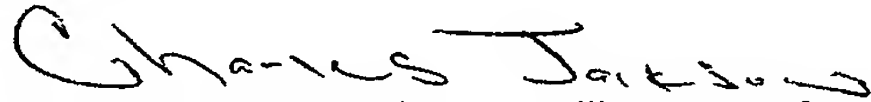
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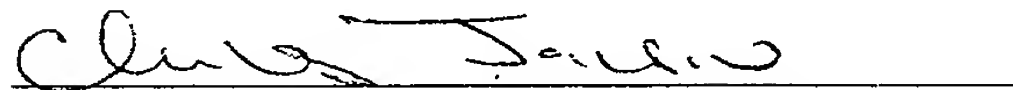
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(Signature of person mailing paper or fee)

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, D.C. 20231  
*Box Patent Application*

Dear Sir:

Prior to examination, please amend the above-referenced application, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

**IN THE SPECIFICATION:**

Page 1, before the first paragraph, please insert thereat:

**--REFERENCE TO RELATED APPLICATIONS**

This application is a divisional application of allowed U.S. Application Serial No. 09/232,279, filed January 15, 1999, which is a continuation-in-part of copending International Application PCT/FR97/01325 having an international filing date of 15 July 1997, and designating the U.S. and claiming priority from French Application No. 96/09403, filed 19 July 1996. Reference is also made to the applications of Audonnet et al., Serial Nos. 09/232,278, filed January 15, 1999, 09/232,468, filed January 15, 1999 (now U.S. Patent 6,207,165), 09/232,477, filed January 15, 1999, (now U.S. Patent 6,228,846), 09/232,479, filed January 15, 1999 (now U.S. Patent 6,221,362), and 09/232,478 filed January 15, 1999 (now U.S. Patent 6,207,166), and to the application of Rijsewijk et al. Serial No. 09/232,469, filed January 15, 1999.

The above-mentioned applications, as well as all documents cited herein and documents referenced or cited in documents cited herein, are hereby incorporated herein by reference.--

Immediately after page 17 and before the first page of claims, please insert the enclosed pages identified as --Sequence Listing--

**IN THE DRAWINGS:**

The formal drawings in this application are the same as in the parent application Serial No. 09/232,279, submitted in this application on February 19, 2002. Please accept the enclosed formal drawings submitted herewith.

**IN THE ABSTRACT:**

Please accept the enclosed page entitled "Abstract".

**IN THE CLAIMS:**

Please cancel claims 1 to 11, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.

Please add the following claims:

--12. An immunogenic composition for inducing an immunological response against

bovine diarrhea virus comprising at least one plasmid that contains and expresses *in vivo* in a bovine host cell nucleic acid molecule(s) having sequence(s) encoding bovine diarrhea virus E2 protein, or C, E1 and E2 proteins, or E1 and E2 proteins.

13. The immunogenic composition according to claim 12 which comprises a plasmid that contains and expresses *in vivo* in a bovine host cell a nucleic acid molecule having a sequence encoding bovine viral diarrhea virus E2 protein.

14. The immunogenic composition according to claim 12 which comprises a plasmid that contains and expresses *in vivo* in a bovine host cell nucleic acid molecule(s) having sequence(s) encoding bovine viral diarrhea virus E1 and E2 proteins.

15. The immunogenic composition according to claim 12 which comprises a plasmid that contains and expresses *in vivo* in a bovine host cell nucleic acid molecule(s) having sequence(s) encoding bovine viral diarrhea virus C, E1 and E2 proteins.

16. A method for inducing an immunological response in a bovine comprising: administering to said bovine a vaccine selected from the group consisting of a live whole vaccine, an inactivated whole vaccine, a subunit vaccine, and a recombinant vaccine; and thereafter, administering to said bovine an immunogenic or vaccine composition as claimed in any one of claims 12-15 or 17-18.

17. A method for inducing an immunological response in a bovine comprising administering to said bovine an immunogenic or vaccine composition as claimed in any one of claims 12-16 or 18.

18. A kit comprising (i) an immunogenic composition according to any one of claims 12-17, and (ii) a bovine vaccine selected from the group consisting of a live whole vaccine, an inactivated whole vaccine, a subunit vaccine, and recombinant vaccine.--

REMARKS

The sequence listing in this application is the same as in the parent application Serial No. 09/232,279, submitted in this application on July 27, 2000. It is respectfully requested that the U.S. PTO use the electronic version of the sequence listing in the parent application, making any necessary changes therein for this application, e.g., as to Serial Number and filing date.

It is respectfully asserted that the sequence disclosure contained in the application fully complies with the requirements set forth in 37 C.F.R. § 1.821 to § 1.825.

It is respectfully submitted that the Sequence Listing conforms to the requirements of 37 C.F.R. § 1.823(b). The Statements required by 37 C.F.R. § 1.821(f) and (g) are set forth below.

Pursuant to 37 C.F.R. § 1.821 (g), the undersigned hereby states that this submission, filed in accordance with 37 C.F.R. § 1.821 (g), does not contain new matter.

Pursuant to 37 C.F.R. § 1.821 (f), the undersigned hereby states that the content of the paper and computer readable copies of the Sequence Listing submitted in accordance with 37 C.F.R. § 1.821 (c) and (e), respectively, are the same.

Also enclosed herewith is an Information Disclosure Statement which references the publications cited in the parent application. It is requested that the Examiner make these publications of record in this application and that a copy of the PTO 1449 form be initialed by the Examiner and returned to the Applicant.

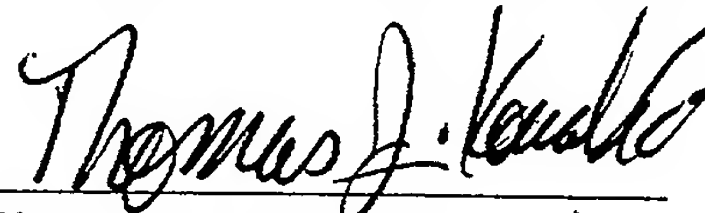
The amendments made herein serve to place the application in better form for prosecution by including the lineage of the application as well as by meeting the requirement for inclusion of an abstract on a separate sheet.

Entry of this Preliminary Amendment and an early examination of claims 12-18 on the merits are respectfully requested. It is believed that no additional fees are due for entry and consideration of this Preliminary Amendment and related papers. Any deficiency or overpayment in this fee, or any other fee occasioned by this paper or any overpayment in any other fee occasioned by this paper, may be charged or credited to Deposit Account No. 50-0320.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,  
FROMMER LAWRENCE & HAUG LLP

By:



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